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EXAMINER
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ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/943,956	TANG ET AL.
	Examiner	Art Unit	
	Andrew C. Lee	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 August 2006*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8,9,11,13-24,26,28 and 30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 3, 4, 6, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .

3)☐ Information Disclosure Statement(s) (PTO/SB/08)   5)☐ Notice of Informal Patent Application

   Paper No(s)/Mail Date _____ .   6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 6 are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential elements, such omission amounting to a gap between the

elements. See MPEP § 2172.01. The omitted elements are: "a first object". The claimed

subject matter "a second object" in the claims 1 and 6 is incoherent. Question will be raised

"where is the first object?"

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 28, 30 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. "computer program product" is directed to non-

statutory subject matter for the original disclosure does not provide clear support of what

"product" has been positively disclosed as. The claimed subject matter "computer program

product" is not distinguishably pointed out and disclosed whether the "product" is

applicant's own inventive product or is referred to certain off-shelf commercial product.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at the time the invention was
> made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall
> not be negatived by the manner in which the invention was made.

4.   Claims 1, 6, 2, 4, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Gudmundsson et al. (US 6870901 B1) in view of Chiu et al. (US 6597689 B1).

Regarding claims 1, 6, 26, Gudmundsson et al. disclose the limitation of a system for

an ADSL access network for providing ADSL provision flow control at a DSLAM switch

(Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27

– 31), comprising: a network management system (column 5, lines 33 – 42, recited

element 1210 Network Management System) in communication with an element

management system (column 5, lines 33 – 42, recited element 1220 Element

Management System) that is in communication with the DSLAM switch (column 5, lines 33

– 42, recited distributing control information from NMS to the DSLAMs as in

communication with the DSLAM switch), the network management system including a

control algorithm (column 8, lines 37 – 45, column 16, lines 63 – 67, recited "supervisory

programs" as control algorithm) for controlling ADSL provision flow on a DSLAM switch by

introducing a two level semaphore including a first semaphore (column 16, line 63, recited

"the first (highest) computational level" as a first semaphore) and a second semaphore

(column 16, line 67, recited "the next computational level" as a second semaphore);

wherein the first controls a first provision request flow at the element management system level (column 16, lines 63 – 67, recited "these supervisory programs interacting with DSLAM" as the first controls a first provision request flow at the element management system level) and the second controls a second provision request flow at the DSLAM switch level (column 17, lines 1 – 7, recited "DSLAM managing one or more line cards (next highest computation level) as second controls a second provision request flow at the DSLAM switch level). Gudmundsson et al. do not disclose explicitly a second object defined by the network management system for representing that a batch process is requesting activity on the DSLAM switch. Chiu et al. disclose the limitation of a second object defined by the network management system for representing that a batch process is requesting activity on the DSLAM switch (recited "software entity that represents the core set of NMS functionality" as second object defined by the network management system; column 55, lines 39 – 40, recited " the ability to schedule management task or jobs at specific times or dates" as representing that a batch process is requesting activity on the DSLAM switch; column 55, lines 47 – 54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. to include a second object defined by the network management system for representing that a batch process is requesting activity on the DSLAM switch such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claim 2, Gudmundsson et al. disclose the limitation of the system according to claimed further comprising the element management system in communication with the DSLAM switch (column 5, lines 33 – 42, recited "element 1220 Element Management System" as the element management system; column 5, lines 33 – 42; recited "distributing control information from NMS to the DSLAMs" as in communication with the DSLAM switch).

Regarding claims 4, Gudmundsson et al. disclose the limitation of the system according to claimed further comprising a first object defined by the network management system for representing that a GUI operator is requesting activity on the DSLAM switch (recited "events are collected and compiled into events lists and event manager resided on a DSLAM" as activity on the DSLAM switch, events as objects; column 19, lines 4 – 11). Chiu et al. also disclose the limitation of the system according to claimed further comprising a first object defined by the network management system for representing that a GUI operator is requesting activity on the DSLAM switch (JAVA is first object; column 54, lines 39 – 46).

Regarding claim 6, Gudmundsson et al. disclose the limitation of a system for an ADSL access network for providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), means for managing an ADSL access network element (column 5, lines 33 – 42, recited element 1220 Element Management System) in communication with means for multiplexing an ADSL subscribers line (recited "DSLAMs" as means for multiplexing and ADSL subscriber line; column 5, lines 33 – 42) and in communication with means for managing

the ADSL access network (recited "element 1210 Network Management System" as means

for managing an ADSL access network element; column 5, lines 33 – 42); and at least one

of the following: the means for multiplexing the ADSL subscriber line (recited "DSLAMs" as

means for multiplexing and ADSL subscriber line; column 5, lines 33 – 42); the means for

managing the ADSL access network (recited "element 1210 Network Management System"

as means for managing an ADSL access network element; column 5, lines 33 – 42); and

means for tracking a semaphore in communication with the control algorithm; wherein the

means for managing the ADSL access network (recited "element 1210 Network

Management System" as means for managing an ADSL access network element; column

5, lines 33 – 42) includes means for controlling ADSL provision flow on a DSLAM switch by

introducing a two level semaphore including a first semaphore and a second semaphore

(column 16, line 63, recited "the first (highest) computational level" as a first semaphore,

and column 17, lines 1 – 7, recited "DSLAM managing one or more line cards (next highest

computation level) as second semaphore controls a second provision request flow at the

DSLAM switch level) ; and wherein the first semaphore controls a first provision request

flow at the means for managing the ADSL network element level (column 16, line 63,

recited "the first (highest) computational level" as a first semaphore, "these supervisory

programs interact with a DSLAM" as controls a first provision request flow) and the second

semaphore controls a second provision request flow at the means for multiplexing level

(column 17, lines 1 – 7, recited "DSLAM managing one or more line cards (next highest

computation level) as second semaphore controls a second provision request flow at the

means for multiplexing level); and Gudmundsson et al. do not disclose explicitly wherein

the system includes the means for managing the ADSL access network further comprising a second object whose attribute is defined by the means for managing the ADSL access network for representing that a batch process is requesting activity on the means for multiplexing the ADSL subscriber line. Chiu et al. disclose the limitation of wherein the system includes the means for managing the ADSL access network further comprising a second object whose attribute is defined by the means for managing the ADSL access network for representing that a batch process is requesting activity on the means for multiplexing the ADSL subscriber line (recited "software entity that represents the core set of NMS functionality" as second object defined by the network management system; column 55, lines 39 – 40, recited " the ability to schedule management task or jobs at specific times or dates" as representing that a batch process is requesting activity on the DSLAM switch; column 55, lines 47 – 54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. to include wherein the system includes the means for managing the ADSL access network further comprising a second object whose attribute is defined by the means for managing the ADSL access network for representing that a batch process is requesting activity on the means for multiplexing the ADSL subscriber line such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claim 8, Gudmundsson et al. disclose the limitation of the system according to claimed further comprising a plurality of means for multiplexing an ADSL

subscriber line (recited " DSLAMs, element 1233, 1234", Fig. 12) in communication with the

means for managing an ADSL access network element (recited "EMS, element 1220" as

ADSL access network element, Fig. 12, element 1250 CPE, as ADSL subscriber line,

column 5, lines 45 – 12).

Regarding claim 9, Gudmundsson et al. disclose the limitation of the system

according to claimed wherein the system includes the means for managing the ADSL

access network further comprising a first object whose attribute is defined by the means for

managing the ADSL access network for representing that a GUI operator is requesting

activity on the means for multiplexing the ADSL subscriber line (column 8, lines 64 – 67;

recited " the report" as first object).

Regarding claims 11, 20, 23, Gudmundsson et al. disclose the limitation of a method

of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system"

as a system for an ADSL access network, see column 5, 27 – 31), comprising:

Gudmundsson et al. do not disclose explicitly sending a provision request from a network

management system to a DSLAM; determining whether a DSLAM level semaphore is

available at the DSLAM switch; determining whether an element management system level

semaphore is available; and connecting the network management system to the DSLAM

switch. Chiu et al. disclose the limitation of sending a provision request from a network

management system to a DSLAM switch (recited " using request and response to

communicate with each other" as sending a provision request from a network management

system to a DSLAM switch; column 55, lines 21 – 36); determining whether a DSLAM level

semaphore is available at the DSLAM switch (recited "each managed device knows how to

respond to standard queries issued by the NMS" as determining whether a DSLAM level

semaphore is available; column 57, lines 53 – 59); determining whether an element

management system level semaphore is available ("in order for the NMS server to

communicate with any IMAS, SNMP agents are provided" as determining whether an

element management system level semaphore is available; column 55, lines 21 – 27); and

connecting the network management system to the DSLAM switch (column 56, lines 7 –

18). It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Gudmundsson et al. to include sending a provision request from a

network management system to a DSLAM; determining whether a DSLAM level

semaphore is available at the DSLAM switch; determining whether an element

management system level semaphore is available; and connecting the network

management system to the DSLAM switch such as that taught by Chiu et al. in order to

provide a switching system called Intelligent Multiservice Access System (IMAS) provides

DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines

15 – 17).

Regarding claims 13, 19, Gudmundsson et al. disclose the limitation of a method of

providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as

a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not

disclose explicitly the method according to claimed wherein delaying comprise delaying the

provision request via a delay loop for 10-15 seconds, and the delaying is difference

between a GUI order and a batch order. Chiu et al. disclose the limitation of the method

according to claimed wherein delaying comprise delaying the provision request via a delay

loop for 10-15 seconds, and the delaying is difference between a GUI order and a batch

order (recited "ability to schedule management tasks or jobs" implies wherein delaying

comprise delaying the provision request via a delay loop for 10-15 seconds; column 55,

lines 47 – 54; column 93, lines 6 – 23). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify Gudmundsson et al. to include the

method according to claimed wherein delaying comprise delaying the provision request via

a delay loop for 10-15 seconds, and the delaying is difference between a GUI order and a

batch order such as that taught by Chiu et al. in order to provide a switching system called

Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in

one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 14, Gudmundsson et al. disclose the limitation of a method of

providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as

a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not

disclose explicitly the method according to claimed further comprising determining whether

a connection is being configured on a corresponding DSLAM switch when the DSLAM level

semaphore is available at the DSLAM switch. Chiu et al. disclose the limitation of the

method according to claimed further comprising determining whether a connection is being

configured on a corresponding DSLAM switch when the DSLAM level semaphore is

available at the DSLAM switch (recited "each managed device knows how to respond to

standard queries issued by the NMS" as determining whether a DSLAM level semaphore is

available; column 57, lines 53 – 59). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify Gudmundsson et al. to include the

method according to claimed further comprising determining whether a connection is being configured on a corresponding DSLAM switch when the DSLAM level semaphore is available at the DSLAM switch such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 15, Gudmundsson et al. disclose the limitation of a method of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not disclose explicitly the method according to claimed further comprising locking the DSLAM level semaphore to the DSLAM switch when a connection is being configured on the DSLAM. Chiu et al. disclose the limitation of the method according to claimed further comprising locking the DSLAM level semaphore to the DSLAM switch when a connection is being configured on the DSLAM (recited "providing security", column 55, lines 40 – 47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. to include the method according to claimed further comprising locking the DSLAM level semaphore to the DSLAM switch when a connection is being configured on the DSLAM such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 16, Gudmundsson et al. disclose the limitation of a method of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not disclose explicitly the method according to claimed further comprising blocking other connection requests on the DSLAM switch when a connection request is being configured on the DSLAM switch. Chiu et al. disclose the limitation of the method according to claimed further comprising blocking other connection requests on the DSLAM switch when a connection request is being configured on the DSLAM switch (recited "Indication to CALLC that a route to the specified address could not be retrieved"; column 68, TABLE G, element "PCI_EVTRELIND"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. to include the method according to claimed further comprising blocking other connection requests on the DSLAM switch when a connection request is being configured on the DSLAM switch such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 17, Gudmundsson et al. disclose the limitation of a method of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not disclose explicitly the method according to claimed further comprising releasing the DSLAM level semaphore when the element management system semaphore is not available. Chiu et al. disclose the limitation of the method according to claimed further comprising releasing

the DSLAM level semaphore when the element management system semaphore is not

available (recited "indication to CALLC that a connection has been released"; column 69,

TABLE 1, element "AMT_EVTRELIND"). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify Gudmundsson et al. to include the

method according to claimed further comprising releasing the DSLAM level semaphore

when the element management system semaphore is not available such as that taught by

Chiu et al. in order to provide a switching system called Intelligent Multiservice Access

System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu

et al., see column 6, lines 15 – 17).

Regarding claims 18, Gudmundsson et al. disclose the limitation of a method of

providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as

a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not

disclose explicitly the method according to claimed further comprising delaying after

releasing the DSLAM level semaphore. Chiu et al. disclose the limitation of the method

according to claimed further comprising delaying after releasing the DSLAM level

semaphore (recited "a connection has been released due to that the local Q93B entity

receiving a message"; column 71,TABLE J, element "CC_EVTRELIND"; column 93, lines 6

– 23). It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Gudmundsson et al. to include the method according to claimed

further comprising delaying after releasing the DSLAM level semaphore such as that taught

by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access

System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 21, Gudmundsson et al. disclose the limitation of a method of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not disclose explicitly the method according claimed wherein resetting an attribute comprises resetting an object associated with the provision request made by the GUI operator. Chiu et al. disclose the limitation of the method according claimed wherein resetting an attribute comprises resetting an object associated with the provision request made by the GUI operator (column 54, lines 39 – 58; column 67, TABLE 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. to include the method according claimed wherein resetting an attribute comprises resetting an object associated with the provision request made by the GUI operator such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines 15 – 17).

Regarding claims 22, Gudmundsson et al. disclose the limitation of a method of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do not disclose explicitly the method according to claimed wherein determining whether a provision request was issued by a GUI operation comprises determining whether a GUI request flag is set. Chiu et al. disclose the limitation of the method according to claimed

wherein determining whether a provision request was issued by a GUI operation comprises

determining whether a GUI request flag is set (recited "the NMS is used by network

administrator to configure, monitor"; column 54, lines 39 – 46; "SNMP_SET", column 67,

TABLE D). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Gudmundsson et al. to include the method according to

claimed wherein determining whether a provision request was issued by a GUI operation

comprises determining whether a GUI request flag is set such as that taught by Chiu et al.

in order to provide a switching system called Intelligent Multiservice Access System (IMAS)

provides DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see

column 6, lines 15 – 17).

Regarding claims 24, Gudmundsson et al. disclose the limitation of a method

of providing ADSL provision flow control at a DSLAM switch (Fig.12, recited "DSL system"

as a system for an ADSL access network, see column 5, 27 – 31), Gudmundsson et al. do

not disclose explicitly the method according to claimed wherein determining whether a

provision request was issued by a batch process comprise determining whether a batch

request flag is set. Chiu et al. disclose the limitation of the method according to claimed

wherein determining whether a provision request was issued by a batch process comprise

determining whether a batch request flag is set (recited "the ability to schedule

management tasks or jobs" as a provision request was issued by a batch process; column

55, lines 47 – 54, column 67, TABLE D, element "SNMP_GET"). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Gudmundsson et al. to include the method according to claimed wherein determining

whether a provision request was issued by a batch process comprise determining whether a batch request flag is set such as that taught by Chiu et al. in order to provide a switching system called Intelligent Multiservice Access System (IMAS) provides DSLAM and ATM

Regarding claims 28, 30, Gudmundsson et al. disclose the limitations of a computer program product comprising a computer readable medium having control logic stored therein for causing a computer to provide ADSL provision flow control at the DSLAM switch (Fig. 12, column 3, lines 61 – 67; column 4, lines 1 – 5), the control logic comprising computer-readable program code (column 4, lines 26 – 35) for causing the computer to: Gudmundsson et al. do not disclose explicitly send a provision request to the DSLAM switch to establish a virtual circuit; determine whether a DSLAM level semaphore is available at the DSLAM switch; determine whether an element management system level semaphore is available; and connect a connect a network management system to the DSLAM switch in response the DSLAM level semaphore and the element management system level semaphore being available; and delay when the DSLAM level semaphore is not available. Chiu et al. disclose the limitation of send a provision request to the DSLAM switch to establish a virtual circuit (recited " using request and response to communicate with each other" as sending a provision request from a network management system to a DSLAM switch; column 55, lines 21 – 36; "inputs and outputs of the IMAS are based on SVC" as the DSLAM switch to establish a virtual circuit; column 77, lines 29 – 35); determine whether a DSLAM level semaphore is available at the DSLAM switch (recited "each managed device knows how to respond to standard queries issued by the NMS" as determining whether a DSLAM level semaphore is available; column 57, lines 53 – 59);

determine whether an element management system level semaphore is available (in order

for the NMS server to communicate with any IMAS, SNMP agents are provided" as

determining whether an element management system level semaphore is available;

column 55, lines 21 – 27); and connect a connect a network management system to the

DSLAM switch in response the DSLAM level semaphore and the element management

system level semaphore being available (column 56, lines 7 – 18);and delay when the

DSLAM level semaphore is not available (recited "to schedule management tasks or jobs at

specific times or dates" as delay when the DSLAM level semaphore is not available;

column 55, lines 47 – 54). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify Gudmundsson et al. to include send a provision

request to the DSLAM switch to establish a virtual circuit; determine whether a DSLAM

level semaphore is available at the DSLAM switch; determine whether an element

management system level semaphore is available; and connect a connect a network

management system to the DSLAM switch in response the DSLAM level semaphore and

the element management system level semaphore being available; and delay when the

DSLAM level semaphore is not available such as that taught by Chiu et al. in order to

provide a switching system called Intelligent Multiservice Access System (IMAS) provides

DSLAM and ATM functionality in one unit (as suggested by Chiu et al., see column 6, lines

15 – 17).

5.   Claim 3, is rejected under 35 U.S.C. 103(a) as being unpatentable over

Gudmundsson et al. (US 6870901 B1) and Chiu et al. (US 6597689 B1) in further view of

the Article "Efficient Implementation of Semaphores in Controller Area Networks" by Cena et al., Industrial Electronics, IEEE Transactions on, Volume 46, Issue 2, April 1999, PP417-428.

Regarding claim 3, Gudmundsson et al. disclose the limitation of the system according to claimed further comprising at least one of the following: a plurality of DSLAM switches in communication with the element management system (Fig.12, recited "DSL system" as a system for an ADSL access network, see column 5, 27 – 31, column 5, lines 33 – 42, recited element 1210 Network Management System). Gudmundsson et al. and Chiu et al. do not disclose explicitly a semaphore count register in communication with the control algorithm. The Article by Cena et al. discloses the limitation of a semaphore count register in communication with the control algorithm (page 420, third paragraph, lines 18 – 22; page 421 – 422, Fig. 3, third paragraph, lines 19 – 29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gudmundsson et al. and Chiu et al. to include a semaphore count register in communication with the control algorithm such as that taught by the Article (by Cena et al.) in order to provide the application designer with a powerful support with which to synchronize the concurrent activities and offers a high degree of reliability and efficiency at the same time.

Response to Arguments

1.   Applicant's arguments filed on 8/14/2006 with respect to claims 1, 2, 3, 4, 6, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL   Nov 02, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER